

## 500 mW LL-34 Hermetically Sealed Glass – High Voltage Switching Diodes



SURFACE MOUNT  
LL34

### Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{RRM}$	Maximum Repetitive Reverse Voltage	250	V
$T_{STG}$	Storage Temperature Range	-65 to +200	$^\circ\text{C}$
$T_J$	Operating Junction Temperature	200	$^\circ\text{C}$
$I_{F(AV)}$	Average Rectified Forward Current	200	mA
$I_{FSM}$	Non-repetitive Peak Forward Current Pulse Width = 1.0 Second Pulse Width = 1.0 $\mu\text{second}$	1.0	A
		4.0	A

These ratings are limiting values above which the serviceability of the diode may be impaired.

DEVICE MARKING DIAGRAM



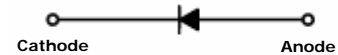
Cathode Band Color : Black

### Thermal Characteristics

Symbol	Parameter	Value	Units
$P_D$	Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	350	$^\circ\text{C}/\text{W}$

### Specification Features:

- LL-34 (Mini-MELF) Package
- Surface Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All External Surfaces Are Corrosion Resistant And Terminals Are Readily Solderable
- RoHS Compliant
- Matte Tin (Sn) Lead Finish
- Color band Indicates Negative Polarity

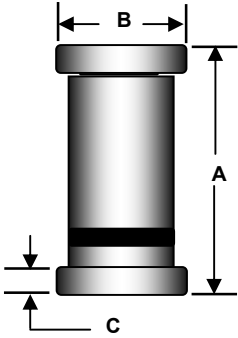


ELECTRICAL SYMBOL

### Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Condition	Limits		Unit	
			Min	Max		
$B_V$	Breakdown Voltage	TCBAV100 TCBAV101 TCBAV102 TCBAV103	$I_R=100\mu\text{A}$	60	---	Volts
				120	---	Volts
				200	---	Volts
				250	---	Volts
$I_R$	Reverse Leakage Current	TCBAV100 TCBAV101 TCBAV102 TCBAV103	$V_R=50\text{V}$ $V_R=100\text{V}$ $V_R=150\text{V}$ $V_R=200\text{V}$	---	100	nA
				---	100	nA
				---	100	nA
				---	100	nA
$V_F$	Forward Voltage	$I_F=100\text{mA}$	---	1.0	Volts	
$T_{RR}$	Reverse Recovery Time	$I_F=I_R=30\text{mA}$ , $R_L=100\Omega$ $I_{RR}=3\text{mA}$	---	50	nS	
$C$	Capacitance	$V_R=0\text{V}$ , $f=1\text{MHz}$	---	5.0	pF	

Package Outline

Package	Case Outline																												
LL34	 <table border="1" data-bbox="715 528 1410 819"> <thead> <tr> <th rowspan="3">DIM</th> <th colspan="4">LL-34</th> </tr> <tr> <th colspan="2">Millimeters</th> <th colspan="2">Inches</th> </tr> <tr> <th>Min</th> <th>Max</th> <th>Min</th> <th>Max</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>3.30</td> <td>3.50</td> <td>0.130</td> <td>0.138</td> </tr> <tr> <td>B</td> <td>1.40</td> <td>1.50</td> <td>0.055</td> <td>0.059</td> </tr> <tr> <td>C</td> <td>0.35</td> <td>0.50</td> <td>0.014</td> <td>0.020</td> </tr> </tbody> </table>	DIM	LL-34				Millimeters		Inches		Min	Max	Min	Max	A	3.30	3.50	0.130	0.138	B	1.40	1.50	0.055	0.059	C	0.35	0.50	0.014	0.020
DIM	LL-34																												
	Millimeters		Inches																										
	Min	Max	Min	Max																									
A	3.30	3.50	0.130	0.138																									
B	1.40	1.50	0.055	0.059																									
C	0.35	0.50	0.014	0.020																									

Notes:

1. All dimensions are within DO213AC JEDEC standard.
2. LL-34 polarity denoted by cathode band.

## **NOTICE**

The information presented in this document is for reference only. Tak Cheong reserves the right to make changes without notice for the specification of the products displayed herein.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <http://www.takcheong.com>, or consult your nearest Tak Cheong's sales office for further assistance.